THE SCOPE

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THE SCOPE

Official Undergraduate Publication of the

MASSACHUSETTS COLLEGE OF OPTOMETRY

178 Newbury Street, Boston, Mass.

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BATES WRITES PAPER FOR JOURNAL

Everett C. Bates '63 has received notification from the *Journal of the American Optometric Association* that his article, "The Anterior Chamber Depth in Emmetropization," has been accepted for publication. The material presented is the outcome of a study made last summer at Indiana University, where Bates took part in the Undergraduate Research Participation Program, sponsored by the National Science Foundation. The article by Bates will appear in the near future.

(See article by Bates on page eleven.)

Hypnosis: A Method to Facilitate Standard Optometric Procedure

by MARTIN E. COHEN '63

The techniques and effects of hypnosis have been known for centuries. It was not until the early part of this century, however, that physicians and dentists began more universally to find hypnosis a practical and useful aid in some of their procedures. From work done during the past year, it has become apparent to this writer that hypnosis in optometry certainly has more widespread use than just in the fitting of contact lenses; it also can be used beneficially during the routine examination of many patients. Hypnosis is as feasible, plausible, and practical in optometry as it is in any branch of the healing arts. Hypnosis will work in the optometrist's office because it helps the optometrist to direct the patient's mental forces into useful channels in the solution of ocular and visual problems.

In the practice of "hypno-optometry," one of the practitioner's primary problems is the development of a special rapport with his patient. He must thoroughly alleviate misconceptions the patient might have about hypnosis and its use in optometry, and the competence of the examiner who uses this technique. Any familiarity the optometrist has with the patient must in no way compromise the *patient's* faith in the professional ability, reliability, and self-confidence of the examiner. The *examiner* must also have complete faith in the honest use of hypnosis as a beneficial optometric technique, and must instill this faith in the patient. The optometrist should make the patient realize that therapeutic hypnosis, not "stage" hypnosis, is one of a great variety of procedures which eye specialists can call upon to provide the maximum eye care for the patient.

It is often helpful to have a third party present when hypnosis is employed. With female patients, this policy is especially prudent. In addition, the optometrist who employs hypnosis professionally should

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Letter to the Editor

To the Editor of the *Scope*:

It has come to my attention recently that optometry schools throughout the country, including M.C.O., do not have any prognostic tools to measure the ability of an applicant to achieve success in his chosen field.

In the field of educational statistics today, other professions have already taken the initiative in developing screening measures to determine applicant ability to achieve success in school (Medical School Aptitude Test, Dental School Aptitude Test, etc.) . . .

Wouldn't it be wonderful if we could administer a single valid and reliable aptitude test that would reveal the extent to which an individual could succeed in optometry? . . . The school would benefit by having an objective tool to predict academic success of a person and thus be able to screen out those unable to do the work. The pupil also could often be saved the inconvenience and expense of becoming a "drop-out" case.

It has been shown many times that teachers' grades in a subject, if properly developed, would be as useful as any other single factor in indicating potential success in the more advanced versions of similar subjects at a more elementary level. Unfortunately, however, marking practices differ from teacher to teacher and from school to school, and they ordinarily have low reliability. You can understand, therefore, that grades received from one college do not correlate highly with like grades received from another college. Thus, a standardized aptitude test covering general mathematics, science, reading comprehension, etc., could serve to determine those applicants most likely to succeed academically in our optometric school system.

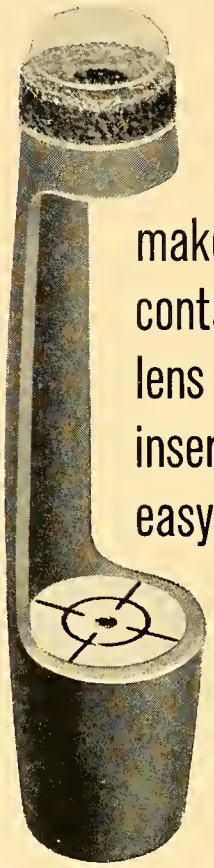
All this may seem to be slanted opinion or philosophical dreaming but, believe me, properly developed aptitude tests, along with other objective tests, should be at the very foundation of the educational selection system of our schools. Someday, all this will come true.

To determine an applicant's potential for optometry, one must use **all** available information about him. This information may include the results of an aptitude test, if adding such data to other information increases the efficiency of predicting academic success for a candidate. Tests to determine the level of general intelligence, personality tests, etc., can all be useful.

In summary, I feel that this is food for thought and a challenge for our profession. Anyone who develops an aptitude test of potential optometry students can make an outstanding contribution to optometry. To rephrase the words of President Kennedy, "Think of what you can do for Optometry, not what Optometry can do for you!"

MICHAEL J. P. GORMAN '62

SITE-RITE



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Rules for Successful Optometric Practice

by LEON TOTTEN

Your first problem, after passing State Boards, is the location of your office. Pick a location where your services are needed. If your home town is a small town, my suggestion is that you locate there or in a town close by. If you come from a large city, give careful consideration to one of the surrounding suburbs. Don't bury yourself in a back office of a multi-floored building in a large metropolis, unless you have good connections for referrals, because no one will ever know you're there. I've seen too many qualified optometrists who grew up in small communities locate in a large city and fail because no one knew their service was available. So Rule No. 1 is: *Locate your practice where you are needed.*

Right now is a good time to bring to your attention what we can call Rule 1a.: *Pick a partner.* I don't mean a wife or another optometrist. I'm talking about an optical laboratory partner, the partner who will supply you with the material requirements necessary for your professional success. Pick a good one, one who can render a complete service. Let him help you select a location for your practice. You will find he is thoroughly acquainted with the needs and requirements of the area which he serves. Remember, he is vitally interested in your success because he dipends on it, too. You need him and he needs you, and this important partnership should be formed before you locate specifically.

Now let's go to our second rule. You have selected your location, picked your partner, set up your office, and announced your opening. If everything goes according to experience, you will be busy for about two weeks taking care of your relatives and close friends. Then comes the depression...that long wait for the 'phone to ring or the door to open. This can last for from three months to five years, depending on how well situated you are financially. If you started with very little financial backing, your days of sitting and waiting are numbered and you may end up earning your living in some other field than optometry. How can this be avoided? Rule No. 2 is the answer: *Make your services available.* Just opening an office isn't enough. People got along without you before and they might continue doing so for a few more years. To really make your services available beyond opening a convenienty located office, my suggestions are these: Offer your services, free of charge if necessary, to the schools in your area so that the pupils may be properly screened. Do the screening yourself two or three mornings a week. In this manner, you will be making yourself known to your future patients. Take an *active* part in community and church functions. Offer to speak and show films on eye care to various local organizations. Offer your service to local factories for screening and visual safety programs. It can easily take fourteen or sixteen hours a day to build up a successful practice and a secure future. Don't waste your time cutting and beveling in a tiny lab located in an obscure corner of your office. Leave this to your partner because he is an expert on how to make a living on a fair but nominal mark-up, and you can't afford to pass up opportunities to earn five to fifteen dollars to save $1.40 to $1.60 on your lab bill. Please remember that "You can't buy profit;" it must be earned through your services. And I must stress this again: Make your services available.

Having made your services available, patients will start coming to you with their eye care problems. Now comes Rule No. 3: *Render complete vision care to your patients.* This means more than giving a 21-point examination, prescribing, fitting, adjusting and verifying a pair of glasses. It means going farther by looking into the specialized visual requirements of your patients. Your knowledge of eye care should bring the suggestion that other glasses might be needed for work or play in bright environments, for hobbies, for evening wear, television viewing, special visual demands at work, or even for the absolute hyperope who has trouble putting on her makeup. There are all kinds of special lenses, bifocals, trifocals, and quadrifocals available and these should be put to their fullest use to give a patient the comfort and convenience he should have for visual tasks. It is your obligation professionally to make the proper recommendations to your patients.

Continued on next page

Practice Rules

Continued

Another important part of complete visual care for your patients is keeping an accurate recall system. I suggest the use of the "post-dated" appointment book. When your patient comes in to pick up his glasses, you say, "Mr. Jones, I want to see you again in about two years. May I have your telephone number so that we may reserve an appointment for you at that time?" Then, about ten days before this two-year period is up, have your secretary or wife call and say something to this effect: "Mr. Jones, this is Dr. Smith's secretary and it is time for you to have your eyes examined. Dr. Smith has set aside 10:00 a.m. on Saturday, March 13th, for your appointment. Will this be convenient?" If it is, then you have your appointment. If it isn't, make an appointment that will be convenient. I feel that this system has it all over other recall systems, and results can run as high as 98% effective, compared with perhaps 60% effectivity in many written recall systems. It is a little more personal and demonstrates to the patient your interest in his eye care and welfare.

We are now at the threshold of Rule No. 4: *Establish fair and just fees,* or, as I like to call it, **F**actual **E**valuation of **E**molument (FEE). To consider the cost of materials as a basis for establishing a fee is the improper approach to my way of thinking because it tends to be a commercial approach, rather than a professional approach to a fair and equitable fee. It also lends itself to working out charges based on percentages as a retail establishment does, completely ignoring the time required for each individual patient and the resulting unequal charges for services. This inequality, due to non-uniform mark-ups on different frames, is the part that bothers me the most. So how do we go about establishing a just fee for services?

My idea of a minimum goal for an emolument is $25,000 per year. You may smile at this, but I happen to feel that for the knowledge you have, the years you have spent in preparation for your profession, and the gigantic service that you perform in giving good vision to the public, this is a minimum, not a maximum to be obtained.

For the purposes of example, we need a couple of other figures. We shall assume a practice of five patients per day for a five day week fifty weeks a year. This means 1,250 patients per year. We also need a figure for our office operation. Let us use these figures in an hypothetical example:

Rent	$ 1,200	per year
Light	80	
Telephone	120	
Receptionist	2,600	
Miscellaneous	1,000	
Office expenses	$ 5,000	
Your emolument	25,000	
TOTAL	$30,000	

$30,000

1,250 = $24 per patient

This means that each one of the 1,250 patients will pay an average service fee of $24.00 per examination. We must break this down into services performed per patient. My own conception of optometric services from years of association with optometry is as follows: (1) Refraction; (2) Interpretation; (3) Fitting; (4) Adjusting; and (5) Verification. Of course, I realize that there are other types of services performed by optometrists, but those listed are the five basic services involved with the prescribing and dispensing of a pair of ordinary spetacles. The amount of time spent with different patients varies with their visual requirements. Compare the time needed to fit a prescription for a prepresbyope, for example, with the time required to fit a pair of multifocals properly. To make the fee equitable and still average $24.00 per patient, I would break the service fees down in the following manner:

I. Single Vision:

1.	Refraction	$ 7
2.	Interpretation	8
3.	Fitting	4
4.	Adjusting	2
5.	Verification	3
	Total fee =	$18

II. Bifocal:

1.	Refraction	$10
2.	Interpretation	4
3.	Fitting	5
4.	Adjusting	3
5.	Verification	4
	Total fee =	$26

III. Trifocal:

1.	Refraction	$10
2.	Interpretation	5
3.	Fitting	6
4.	Adjusting	4
5.	Verification	5
	Total fee	$30

Practice Rules

Continued

You can make your own adjustment to this schedule, but you must keep the totals in mind to average out your charge per patient on a fair and just basis.

Once you have established your fee schedule, you merely add the lab costs for frame, lenses and case to the fee and quote your patient his total charge. For example, take a simple, single vision prescription:

Fee	$18.00
Lenses	4.55
Frame	2.95
Case	.60
Charge quoted	$26.10

If he needs a pair of sun glasses, your fee is based on interpretation, fitting and adjusting:

Fee	$ 8.00
Lenses	5.85
Case	.60
Frame	2.95
Charge quoted	$17.40

If the patient breaks a lens in his sun glasses, your charge is based on adjusting and verification:

Fee	$ 5.00
Lens	2.95
Charge quoted	$ 7.95

Use the same method for a broken temple:

Adjusting	$ 2.00
Temple	.65
Charge quoted	$ 2.65

All charges quoted to your patients for various services performed can be worked out on the same fee schedule. What I have shown you is nothing new or startling. In fact, it's about as old as I can remember. Optometrists have written in books about this subject, and the A.O.A. puts out a very good booklet discussing it. The only thing I have done is to put down actual figures in dollars and cents, basing them on hypothetical examples.

Right now, I will say it would be a mistake to break this fee schedule down for each patient because the public is not ready to accept it yet. More patient education and public relations work are necessary before they will thoroughly understand that they are paying for *services* and not buying glasses.

So much for Rule No. 4. Now I would like to go into Rule No. 5: *Establish a form of payment and collection schedule.* This is a rough one but an important part of your future. Unless you are wealthy and can afford to be a banker, you had better make some hard and fast rules regarding credit extented to patients. One rule I would make be to discuss with the patient, after examination and frame selection, how they would like to pay for the costs of services and materials. If they wish to pay cash when they receive their glasses, ask them for a down payment of a specific amount. This should be enough to cover your cost of materials. I can't think of a person who would go for an examination without planning to pay something on that visit.

If the individual says he would like to budget payment, have a form that must be filled out and signed along with a card showing the payment schedule. With the budget system, a down payment of at least your cost of materials is necessary. If arrangements through your local bank can be made, use this service and let the bank do the collecting. Don't feel soft-hearted over this form of payment; the American public is conditioned to it. Time payments should be established on a weekly basis for an amount of not less than two dollars per week. The term should not run longer than eight to twelve weeks. Some banks have small credit plans for patients, and there are several plans being designed by optometric groups. So don't forget Rule No. 5: Establish a form of payment and collection schedule. Without it, you could go bankrupt.

Rule No. 6 is: *Use only top quality materials.* The cost difference between top quality and questionable quality is only a matter of one or two dollars an order. If you are established on a fee plus cost basis, the small difference is not enough to lure your patient to the guy around the corner or down the street. Using questionable quality can backfire badly and just isn't worth the little you might save. As I stated earlier, "You can't buy you profit."

Optometrists, yours is a fine profession which has services to offer that are sorely needed! I am of the firm conviction that none of the allied professions can render this service as adequately as optometry can. Your service is unique. Be proud of the profession you have chosen.

A History of the Vertebrate Eye

Condensed from a paper

by FRANK N. LEE '63

This is a brief history of the vertebrate eye. I will attempt to trace the eye from its simplest form in the primative vertebrates to its culmination in the higher mammals. Each of the five major divisions of the vertebrates, *Pisces, Amphibia, Reptilia, Aves,* and *Mammalia,* will be considered in the order of its evolutionary development.

The elementary sense organ of the animal kingdom is a single epithelial cell connected to some sensory center by a nerve. Higher efficiency is gained by association of several of these simple units into a larger sense area, by specialization of the cell itself, and by development of accessory parts.

The eye is the only sense organ developed from a portion of the brain surface. The lens, however, arises from the ectoderm while the choroid, sclera, and vitreous develop from connective tissue. The three primary brain vessicles in early vertebrates bear an olfactory slit and a pigment spot, and this is paralleled in higher forms since only the olfactory and optic nerves arise from the first two brain vessicles.

Sturdurick's theory (1912), regarding the evolvement of the lamprey eye from the pigment spot, indicates that the rods and cones are derived from the non-nervous ependymal cell layer of the brain wall. The lens, he believes, existed in another status, but there still is no satisfactory explanation for lens development.

Osmotic adjustment to the environment in early *aquatic forms* gave rise to intraocular pressure and rigidity of the vertebrate eye. The development of ellipsoidal corneas, creating high but unnoticed astigmatism (since the aqueous environment neutralized the power of the corneal surface) and a high motility of the protruding cornea arose to counter-act the pressure-friction problem in sea life.

As evidenced in sharks and teleosts, accomodation was produced by external deformation of the eyeball, creating a space between the fixed, spherical lens (which projected through the pupil) and the cornea. In these forms, the ciliary muscle is first seen, and there is an increase in the number of cones, previously outnumbered five to one by the rods.

Some *amphibians* overcame the problem of increased myopia in air and hyperopia under water by developing a strong *sphincter iridis* muscle of accommodation which could deform the soft-jelly lens, or by having a slanted retinal surface relative to the visual axis, positioning it closer to the anterior part of the eye inferiorly than superiorly. This clever arrangement enabled near and far objects to be in focus simultaneously, and provided a clear image in each of the optically different environments inhabited by these forms. In contrast to fishes, the typical amphibian eye has a spherical cornea, a better developed retina with thicker visual cells, and an increase of cones in proportion to rods.

Except for snakes, *reptiles* have the same visual apparatus as their amphibian predecessors, but it is better developed. The contraction of the meridianal ciliary muscles, which originate in the inner layers of the cornea and insert in the *orbicularis ciliaris* muscle, squeezes the lens for accomodation. The uniform, thick cornea has the same layers as in more advanced animals. The fovea centralis may be larger with a greater concentration of visual cells than in man.

The large *avian* eye, through which the best vision in the animal kingdom is obtained, has no new features of any great importance. There is little eye movement, since the ocular-motor muscles are small and often functionless. Accomodation is produced by striated intrinsic muscles and corneal curvature changes. Rods predominate in nocturnal birds, while the reverse is true in diurnal types. The avian *pecten,* which is a pigmented, folded, vascular projection from the optic nerve head into the

vitreous, probably functions as a nutritional device.

Birds like the kingfisher, which must see well underwater, have one fovea for aerial vision and another for aquatic vision.

A high resolving power in birds and in certain other animals is due to the large image cast on the retina by a large eye, and by a dense concentration of cones. This is why the foveal visual acuity of the hawk or eagle may be eight times that of man.

Mammals, originating from nocturnal small-eyed forms, can be divided into marsupials and monotremes which have eyes similar to the reptilian eye, and placentals which have eyes like the amphibians. Mammals have increased visual acuity, and also have a twenty-four hour visual capacity.

The most important change achieved by marsupials and placentals was the indirect attachment of the lens to the ciliary body by means of suspensory ligaments, whereby accomodation was produced through the use of the elasticity of the lens capsule. In the primates, the ciliary is well developed for the accomodative mechanism, but the reverse is true in large-lensed mammals such as the ungulates which focus by use of a slanted retina.

With the exception of some sub-human primates, most wild mammals are hyperopic. This is even better than being emmetropic because, with aging, the lens hardens and the index of refraction increases causing slight myopia. In addition, a constant accomodation causes ciliary tonus so that the ciliary muscle of the hyperopic eye tends to be better developed.

Except in primates, the extent of accomodation in mammals is low. As the eye diminishes in absolute size in the smaller mammals, e.g. in mice as compared to cats, the increased *relative* lens size and its relative recession toward the retina result in reduced accomodation and increased hyperopia. Thus, mice eyes function chiefly to record intensities and direction of light, since the retinal images are so crude.

To reduce the intensity of daylight, the slit pupil was created in the eyes of some nocturnal animals, allowing their rod-rich retinas to function under daylight as well as normal night illumination. The cone-rich retina, however, is still limited to diurnal vision.

The *tapetum lucidium,* a special reflecting device found in the retinas of some animals, enhances the visual acuity under low illumination by increasing the sensitivity of the retina.

Humans probably have one of the most adaptive and flexible eyes in the animal kingdom. Although many human eye characteristics imitate those of the reptilian and avian eyes, there has been refinement and differentiation. The most striking feature of primate vision, however, is not in the structure of the eye, but rather in the advancement of brain functions and integration with higher centers in the process of vision.

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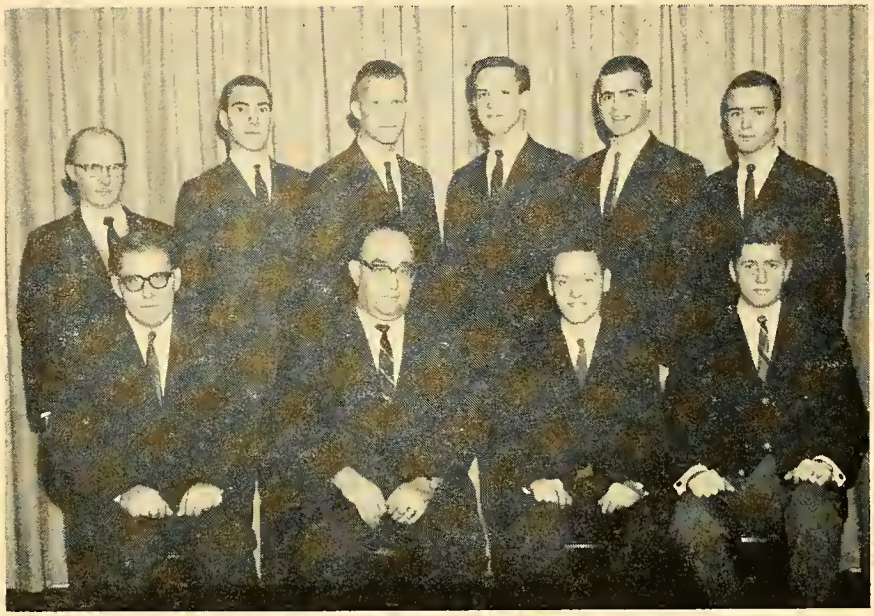
THE OPTOMETRIC FORUM



Seated left to right: Augustus Falcone '63; Dr. Carroll Martus '60, Advisor; Calvin Pisetsky '64; Ronald Loring '65; Standing: Victor Gallo '63; Franklin Levin '64; David Housman '64; Philip Sidran; '65; David Sheinkopf '66; Barry Meyer '66.
(Harvard Studio)

The Optometric Forum of the Massachusetts College opened its second academic year with a presentation by one of New England's outstanding optometric personalities, Dr. Arthur S. March of Concord. His presentation, "Intracapsular Cataract Extraction," was enthusiastically received. Dr. March personally photographed in color a series of cataract extractions. Dr. March is a past-president of the Massachusetts Society of Optometry and the first editor of the *New England Journal of Optometry*.

At the second meeting, Dr. Lincoln A. Palmer, an Associate in Optometry at M.C.O., and Dr. Robert J. McNulty '60, were the main speakers. Dr. Palmer spoke about referring and Dr. McNulty spoke on the clinical aspects of working with physicians. An interesting discussion followed.

On January 10th at the meeting, the meaning of the Optometric Extension Program was explained in a very infformative session by Dr. Solomon Slobins, Regional Director of O.E.P., and Dr. Lester Sugarman, past-President of the American Optometric Association and the Connecticut Optometric Association.

Dr. H. Ward Ewalt, Jr., President of the American Optometric Association, will be the principle speaker at the next meeting which will take place on March 11th. Everyone associated with the school make a sincere effort to hear Dr. Ewalt. His topic will be, "Planning Your Success in Optometry."

The Optometric Forum was organized last year (see the January 1962 *Scope*) to provide a meeting place for the exchange of ideas and an opportunity for the students to meet and discuss with the outstanding men of the profession topics which will broaden our optometric education.

A permanent Board of Governors, selected to serve for four years, directs the Forum. The current board consists of Calvin Pisetsky '64, Chairman; Augustus Falcone '63, Secretary; Ronald Loring '65, Treasurer; Victor R. Gallo '63; David Housman '64; Franklin Levin '64; Philip Sidran '65; David Sheinkopf '66; and Barry Meyer '66. Dr. Carroll M. Martus '60 is Faculty Advisor.

Hypnosis

Continued

confine this technique to his office, and never perform socially or non-professionally.

Optometric hypnotists should use their skills solely for the solution of problems of an ocular or visual nature, and must avoid any examination of a patient's personality problems As is the case in regular optometric procedures, one should never create a problem in the interview or when employing hypnosis. If the practitioner has become well-trained in his science and has a good foundation in psychology, then he will be well-equipped to consult with a psychologist in cases in which it is established that the visual problem is a local manifestation of a general psychological disorder. Together, a program for the alleviation of both visual and personality problems can be undertaken. Of course, the experienced optometrist can make his examination without consultation.

Optometric hypnotists have been criticized severely by some who feel that they will not be able to cope with personality problems if they arise. Certainly these critics are aware that the incidence of such occurrences outside the psychiatrist's office is low. The optometrists who venture into the use of hypnosis in practice will be well-trained and prepared for any eventualities.

Are there dangers in hypnosis? There are a few, but no more than in the practice of any specialty by a practicioner ignorant of the technical and psychological aspects of his specialty. Sometimes a patient fears that he will not wake up from his trance. Such fears may be allayed by informing the subject that there is no basis for this fear. Even if no effort is made to terminate the trance, recovery will occur in a short while, as if the subject were awakening from a normal sleep.

Hypnosis in optometry would not be used to veil pain, as is often the case in dentistry and medicine. Only the alleviation of some ocular problem would be involved, thus allowing proper and normal functioning of the visual apparatus. The application of hypnosis to optometric procedures has been shown to range from the reduction of blepharospasm and excess lacrimation in contact lens fitting to a study of actual tissue changes that occur in the eye when the subject is under hypnosis.

Weitzenhoffer has stated that the effects of hypnosis and of suggestion in general can be quite extensive, affecting just about every psycho-physiological function. Certainly the use of spectacles and visual training alter the physiological functioning of the eye and necessarily affect the psycho-physiological attitude of the patient as a whole.

Along these lines, in optometry we are faced with such conditions as hysterical blindness, myopia, strabismus, amblyopia, asthenopia, glaucoma and amaurosis, all of which could be psychogenetic. It has not been shown satisfactorily that hypnosis can cure these conditions, but it has been shown that techniques and suggestions employed under hypnosis can help alleviate these conditions and possibly lead to an altering psycho-physiological change, as shown by Kelley. [3]

Specifically, let us examine some new etiological concepts in glaucoma, myopia, and strabismus.

Continued on next page

Hypnosis

Continued

Glaucoma is a disease of tension. Hypnosis can reduce tension in both the central nervous system and in the automatic nervous system. One might ask if hypnosis warrents investigation as a means of dealing with glaucoma. At present, there are many theories and techniques employed in combatting glaucoma, but success is still limited. It is certainly absurd to rule out hypnotic techniques in the control of glaucoma until investigation is done. Because of the psychological components in the etiology of glaucoma, it would seem that hypnosis could be an aid in glaucoma treatment.

Functional myopia is another problem for which no definite answers to cause or treatment have been provided. It has been shown that myopia can most certainly be reduced with the use of hypnotism, although sustained reduction remains a problem of technique. [3]

In *strabismus* examination, certain non-physical considerations are essential such as the basic psychological dynamics of the subject's personality, the place of the squint in his emotional make-up, and an assessment of the patient's motivation and ability to enter this type of treatment. Candidates must be screened for psychopathology, and for those in whom the removal of an ocular symptom might be replaced by another more menacing symptom. Even the latter cases can be handled by a well-versed practitioner in collaboration with a psychologist. Beiman has summarized hypnotic treatment of strabismus [2] in this way:

1. Functional squint is a self-perpetuating neuromuscular symptom with psychological implications.

2. Functional squint is amenable to a psychosomatic approach, with a recognition of emotional as well as physical perpetuating factors.

3. Hypnosis can be an excellent diagnostic and treatment tool, and it can provide the medium for integrating the orthoptic and psychological aspects of treatment.

4 Inter-professional co-operation may be essential, since few individuals possess training in both fields, i.e., vision and psychology.

The use of hypnosis in optometry needs further investigation. Indeed, we have only begun to determine to what extent hypnosis can aid the optometric practitioner. It would seem that the benefits, especially for orthopists, would be considerable.

But who is to do this investigation? Certainly the men in the field have all they can do to keep up with the advancements made in optometry in recent years. To this writer, it seems that empirical research along entirely new lines is the responsibility of our schools. They must provide the knowledge necessary to commence the program and enable those interested to establish clinical procedures which may eventually be incorporated as a most effective part of optometric practice. To this end, the Massachusetts Society of Optometrists, with the assistance of Dean Ralph H. Green of the Massachusetts College, has inaugurated a research program to delve into the field of hypnosis as it is related to optometry. Dr. Robert Morrison, an optometrist from Harrisburg, Pennsylvania, has also helped the committee and this writer in countless ways.

Continued on next page

RESEARCH KEY TO PROGRESS OF OUR PROFESSION

an Editorial by EVERETT C. BATES '63

Optometry became recognized as an established profession around the turn of the century, and since that time it has come far in gaining its current recognition. In order that we may maintain and increase this recognition, it is essential that we establish good public relations. Of even greater importance, however, is the satisfaction of the patient who realizes "a job well done." To this end, the *practicing optometrist* must devote his time and energies.

It is also of paramount importance that optometry show progress if we are to maintain this recognition. New techniques, a better understanding of how the eye functions, better lens designs . . . all these and more are essential if we are to be recognized as a progressive science. Also, there are commitments in the fields of industrial vision, highway safety, lighting design, and now in the problems of vision in space. It is to this end that the *research optometrist* must devote himself.

How many of us are aware of the nature of research? It is a trying field. Problems are presented, many of them requiring years to solve, but they are solved. And because optometry has kept pace in research, we, too, can walk with our heads held high.

Continued on next page

Hypnosis

Concluded

During the coming months, research at the Massachusetts College will try to establish some definite answers to our problems. Perhaps it will be most enlightening to start with a comparison of non-hypnotic refractions to refractions conducted employing hypnotic techniques. Investigations will be made to determine whether we can: reduce proximal convergence effects; induce a truly static state; increase the conviction of the patient that the examination is being conducted under habitual seeing conditions for him; relieve image size disparity in aniseikonia; strengthen reserves by suggestion; and so forth. By next September, the Massachusetts group should have some valid answers and suggestions.

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RESEARCH

Continued

One of the major problems facing researchers in any field is the endurance of failure. In research, failure is the rule rather than the exception. It is only through great perseverance and courage that failure compounded by failure can be turned into success. Those of us who do not actually participate in research hear only of the final outcome of a study; we are ignorant of the many hours of preparation for a study, the wastebaskets filled with ideas which did not work, and the discouragements preceding the final success.

Another of the problems which faces research is that of funds. Money implements research; without adequate backing, research is fruitless. This is good reason why it is our duty to support those organizations which allocate funds to the various optometry schools, in order that we may progress through research in a society which is constantly moving forward.

In these few paragraphs, I hope that I have been successful in impressing upon you the importance of optometric research and why we should give it our full support in our years of practice of the best profession there is.

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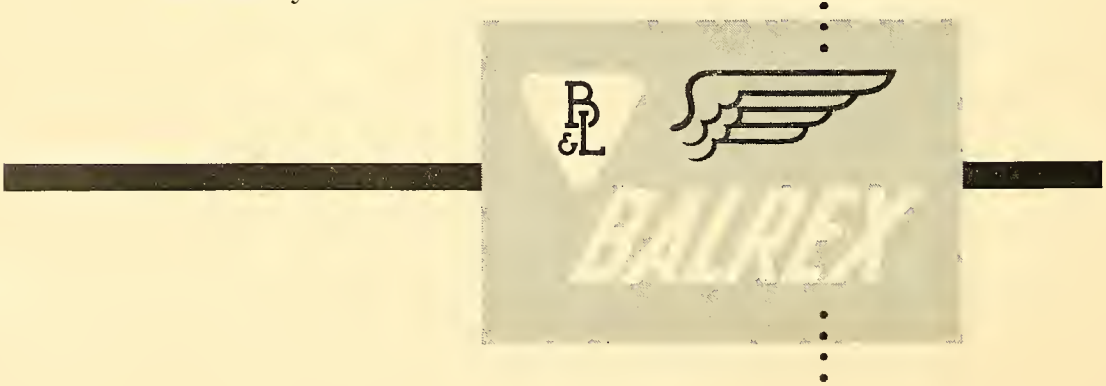
you want every patient satisfied; your practice trouble-free as possible; employ the fast, accurate, dependable, individualized service of your B&L lab.